

**March 31, 2006**

Notes:
Data in this quarterly report are provisional. Case rate per 100,000 population based on 2000 census estimates.
Cells with 3 or fewer cases or deaths are set to missing (.).
AIDS cases are included in counts of HIV cases. HIV and AIDS data are categorized by year of diagnosis.
*Out of State AIDS cases are included in "Total" Category.
** Refer to the technical notes for information about the effect of the IDEP (Interstate Duplication Evaluation Project) on AIDS and HIV case counts.



## Using These Tables

Number of cases per 100,000 population.

Table 1

### AIDS Cases and Annual Rates per 100,000 Population By County

**Cumulative Totals, Prevalence Rate, Ranked by Rate and Cumulative Deaths\***

**Incidence Rates, Diagnosed January 1 - December 31, 1999 and January 1 - December 31, 2000**

County	Cumulative through June 30, 2001				Jan. 1 - Dec. 31, 1999		Jan. 1 - Dec. 31, 2000	
	Cases	Rate**	Rank	Deaths	Cases	Rate	Cases	Rate
Abbeville	19	72.6	46	10	4	16.2	#	#
Aiken	253	177.5	29	143	15	11.1	11	7.7
Allendale	37	330.0	11	19	5	44.2	#	#
Anderson	189	114.0	42	96	17	10.4	16	9.7
Bamberg	86	516.3	2	42	6	36.8	5	30.0
Barnwell	67	285.4	15	35	5	23.0	10	42.6
Beaufort	185	153.0	34	91	15	13.3	16	13.2
Berkeley	189	132.5	37	96	13	9.1	16	11.2
Calhoun	30	197.6	26	18	#	#	#	#

Cumulative number of cases.

County ranking by rate since 1982.

Note if AIDS/HIV/STD case.

Table 8

**South Carolina HIV Cases\* by Age Group, Exposure Category, and Sex**

Cases Diagnosed January - December 1999 and 2000

### Cumulative Totals by Age Group and Exposure Category

Cumulative Through June 2001

Adult/adolescent exposure category***	Males				Females			
	Jan. 1 - Dec. 31, 1999		Jan. 1 - Dec. 31, 2000		Jan. 1 - Dec. 31, 1999		Jan. 1 - Dec. 31, 2000	
	Cases	%	Cases	%	Cases	%	Cases	%
Men who have sex with men	226	34%	193	32%	N/A		N/A	
Injecting drug use	67	10%	53	9%	26	8%	29	9%
Men who have sex with men & inject drugs	13	2%	9	1%	N/A		N/A	
Hemophilia/coagulation disorder	-	0%	-	0%	-	0%	2	1%
Heterosexual contact:	149	23%	116	19%	192	62%	149	48%
Sx w/ injecting drug user	19		5		26		15	
Sx w/ bisexual male	N/A		N/A		7		6	
Sx w/ person with hemophilia	2		-		1		1	
Sx w/ transfusion recipient w/HIV	1		-		1		-	
Sx w/HIV+ person, risk not specified	127		111		157		127	
Receipt of blood transfusion/components	4	1%	-	0%	2	1%	2	1%
Undetermined	199	30%	236	39%	121	39%	130	42%
Confirmed Other	-	0%	-	0%	-	0%	-	0%
<b>Adult/adolescent subtotal</b>	<b>658</b>	<b>100%</b>	<b>607</b>	<b>100%</b>	<b>341</b>	<b>100%</b>	<b>312</b>	<b>100%</b>

These figures are a breakdown of the heterosexual contacts. They are included in the total.

## **TECHNICAL NOTES – March 31, 2006**

### **Legal Reporting Requirements in South Carolina**

HIV infection and AIDS cases are reportable in South Carolina by law. All physicians, hospitals, laboratories, administrators of health care facilities, charitable or penal institutions, etc., are required to report HIV infections and AIDS cases to DHEC with identifiers (See S.C. Code Ann. Sections 44-29-10, 70, and 80 (Supp. 1989); 24A S.C. Code Ann. Reg. 61-20 (Supp. 1989) and 24A S.C. Code Ann. Reg 61-21 (as amended)). All information regarding sexually transmitted diseases including HIV and AIDS, reported to DHEC must be kept strictly confidential (See S.C. Code Ann. Section 44-29-135 (Supp. 1989)).

### **Surveillance and Reporting in South Carolina**

Data in this report are provisional. The data are constantly updated to reflect the most accurate statistics. Reporting delays (time between diagnosis and report to DHEC) are as follows: approximately 84% of all AIDS cases are reported within 3 months of diagnosis; approximately 93% are reported within 6 months of diagnosis; about 95% are reported within 9 months diagnosis; approximately 96% are reported within 12 months of diagnosis; and 4% are reported more than 1 year after diagnosis.

Age group tabulations are based on person's age at diagnosis of HIV or AIDS; adult/adolescent cases include persons 13 years and older; pediatric AIDS cases include children under 13 years of age. Pediatric HIV positive children are not included in the HIV data until they are confirmed HIV positive at 18 months of age.

County tabulations are based on person's country of residence in South Carolina at the time of initial diagnosis of AIDS or HIV infection. For statistical purposes, the county data are never updated to reflect the migratory patterns that may occur. AIDS cases that are diagnosed outside of South Carolina are reflected in the out-of-state category. These cases are deemed out-of-state according to the jurisdiction policies set by the National Centers for Disease Control and Prevention (CDC).

Completeness of AIDS case reporting has been assessed in South Carolina. Findings from a validation study of 1999 hospital discharge data indicated that 97% of the inpatient AIDS-related discharges (cases) had been reported to the DHEC HIV/AIDS Surveillance Program ("Improvements in AIDS Case Reporting, South Carolina" JAMA 1991; 265(3):356).

In July of 2001, the CDC sent states an evaluation program to conduct in HARS on the timeliness of HIV and AIDS reports. The results from the project indicated that the South Carolina HIV/AIDS program was well above the standard of 66% of cases reported within six months of diagnosis. The result from the evaluation determined that the timeliness for HIV reporting was 92.7% and AIDS reporting was 87.2% within 6 months. Several factors contribute to these higher percentages:

- 1) HIV surveillance has been conducted since February 1986;

- 2) Both physicians and laboratories are required to report positive EIA/WB, CD4 T-Lymphocyte counts of <200 or <14%, and detected HIV RNA and positive DNA viral load results, and
- 3) Active surveillance activities are conducted by regional surveillance coordinators assigned to 4 areas throughout the state.

### **CDC's AIDS Case Definition**

As of January 1, 1993, the National Centers for Disease Control and Prevention (CDC) AIDS case definition has been expanded to include the following AIDS - defining conditions in people with HIV infection:

**CD4T-lymphocyte count less than 200/  $\mu$ L or CD4 T-lymphocyte percent of total lymphocytes less than 14%**

**Pulmonary tuberculosis (TB disease)**

**Invasive cervical cancer**

**Recurrent pneumonia, within a 12 month period**

According to the Centers for Disease Control and Prevention (CDCP), the expanded HIV classification system and AIDS surveillance case definition is expected to increase the number of reported cases in 1993 by approximately 75%. The immediate increase in case reporting will largely be attributed to the addition of the severe immunosuppression to the definition.

The number of AIDS cases reported in South Carolina during January - March 1993 compared to January - March 1992 increased by 228%. This large increase was mainly attributable to the implementation of the CDC's Expanded HIV Classification system and AIDS surveillance case definition. This increase is also due to the expansion of surveillance efforts throughout South Carolina by the addition of staff referred to as regional surveillance coordinators. These regional surveillance coordinators are located in the 4 largest cities of the state (Charleston, Columbia, Florence, and Greenville) and are responsible for surveillance in the immediate areas surrounding them.

### **Exposure Categories**

A hierarchy of exposure categories designed by the Centers for Disease Control has always been used for surveillance purposes. Persons with more than one reported mode of exposure are classified in the category listed first in the hierarchy, except for men who have sex with other men and inject drugs. They comprise a separate category. In addition, "undetermined" refers to persons whose mode of exposure to HIV is unknown. This includes persons who are currently under investigation, persons who died before exposure history was obtained, persons who are lost to follow-up, or persons who refused to be interviewed. The large numbers of "undetermined" mode of exposure in the HIV data is attributed to the fact that exposure category information is presently only available on persons reported from DHEC clinics. Consequently, this caveat should be taken into consideration when using the HIV exposure category data. In the future, DHEC will be using a combined HIV/AIDS report form designed by the Centers for Disease Control that will allow us to collect mode of exposure for HIV infection in both DHEC clinics and non-DHEC settings.

## **Rates**

Some rates in this report are cumulative rates; they are on a cumulative basis per 100,000 population. The numerators for computing the cumulative rate are based on the cumulative number of AIDS cases or HIV infection by county of residence. The denominators for computing rates are based on estimates of the 2000 census data (Division of Research and Statistical Services, State Data Center, South Carolina Budget and Control Board). Each rate is computed as the cumulative number of cases divided by the current year estimated population, multiplied by 100,000. Incidence rates are also included. The numerators for incidence rates are based on the number of AIDS cases or HIV infection during the year of report. Incidence rates are computed as the number of cases in the report year divided by the current year estimated population, multiplied by 100,000.

## **AIDS CASE RESIDENCY AND DEDUPLICATION EFFORTS**

### **AIDS and HIV Case Reporting**

All states and U.S. territories have some form of HIV/AIDS reporting that incorporates reporting by individual medical care providers and/or laboratories conducting HIV related tests. This national effort enables public health surveillance staff to track the scope of the AIDS epidemic. It also allows the federal government to allocate funds equitably to the states for the care of people with HIV and AIDS who cannot pay for all or part of their treatment.

All states and areas have been reporting AIDS cases since 1986. Because of advances in treatment that have extended the time between HIV infection and a diagnosis of AIDS, states began instituting HIV reporting in 1985 as a way of understanding how the epidemic has changed and the progress of HIV disease. However, HIV case reporting is currently less standardized than AIDS case reporting. Some areas or states have only recently implemented HIV reporting and this reporting is not consistent across all areas. Therefore, AIDS case reports (also called surveillance data) are considered the only nationally representative data source for the epidemic.

### **Potential for Duplication**

**The potential for duplication has become more of an issue because of the mobility of our society and also because of the success of treatment for HIV and AIDS.** Persons with HIV or AIDS may move for reasons related to their infection, for example, to be near family or friends, to seek social support services, to seek more knowledgeable physicians, to seek experimental drug programs, or because of inability to work due to HIV disease. With the advent and success of highly active antiretroviral therapy (HAART), those persons living relatively healthy lives may move for reasons unrelated to HIV or AIDS – to seek out new job opportunities or simply to fulfill a dream of living in a different place. This mobility increases the challenge of avoiding duplication in counting persons with AIDS across different jurisdictions throughout the US.

**To counter the potential problem of duplication, CDC initiated the Interstate Duplication Evaluation Project (IDEP) in 2002.** This considerable effort compared patient

records in the national database across states in order to identify potential duplicate cases. The following process was used.

1. CDC reviewed the national case reports sent to CDC through December 2001 for duplications. Because CDC does not receive names of patients, a match of information consisting of soundex (which is a code for the last name), date of birth, and gender identified potential duplications.
2. CDC provided states with a listing of all cases that were potential duplicates from other states. CDC also included additional supporting information such as diagnosis and death dates to assist states in their attempts to determine whether persons were the same or different individuals.
3. States contacted each other to compare their patient profiles along with additional information available at the state level that is not reported to CDC.
4. Based on their discussions, the states decided whether the cases represented the same person. If they did, the states determined the state of residency at the date of diagnosis.
5. The states forwarded these decisions to CDC, which returned them, after processing and quality control, to the states for updating their surveillance databases.

**After de-duplication, the numbers of cumulative diagnosed AIDS cases in individual states will most likely decrease, as will the overall national numbers.** CDC estimates that the decreases on the national level will be less than 5% of the AIDS cases reported over the entire history of the HIV epidemic.

**How has this de-duplication effort affected the states' numbers of AIDS cases?** Preliminary data suggest that there are, on average about 300 duplicate cumulative AIDS cases per state, although that ranged from 0 to over 3000 for individual states. This means that, again on average, that there were about 5% duplicate AIDS cases per state, although that ranged from 0 to 10%.

## **INCREASE IN CASES OF DIAGNOSED CHLAMYDIA**

There is a noticeable increase in the number of diagnosed cases of Chlamydia starting in 2004. This is due in part to a new test assay being used that is more sensitive. The new test being used this year (Aptima) has enabled better detection of Chlamydia, and, therefore more cases are being diagnosed that would have been previously undetected. There is also an increase in the number of providers reporting Chlamydia cases in 2004.